UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/991,378	11/21/2001	Mark W. Miles	01568-006003	4461

20995 7590 06/11/2008

KNOBBE MARTENS OLSON & BEAR LLP
2040 MAIN STREET
FOURTEENTH FLOOR
IRVINE, CA 92614

EXAMINER	
PIZIALI, JEFFREY J	

ART UNIT	PAPER NUMBER
2629	

NOTIFICATION DATE	DELIVERY MODE
06/11/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

jcartee@kmob.com
eOAPilot@kmob.com

Office Action Summary	Application No.	Applicant(s)	
	09/991,378	MILES, MARK W.	
	Examiner	Art Unit	
	Jeff Piziali	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 February 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *20,25,26,28,32,33 and 40-85* is/are pending in the application.

4a) Of the above claim(s) *20,25,26,28,32,33,40-54,59-61,63,68,69 and 72-85* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *55-58,62,64-67,70 and 71* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 February 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *18 April 2008*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Species IV (i.e. Claims 55-58, 62, 64-67, 70, and 71) in the reply filed on 11 September 2006 (as well as 16 May 2006) is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

2. Claims 20, 25, 26, 28, 32, 33, 40-54, 59-61, 63, 68, 69, and 72-85, withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 11 September 2006.

Information Disclosure Statement

3. The information disclosure statement filed 18 April 2008 includes four office actions from other US patent applications. The examiner has not considered those office actions. If the examiner were to consider those office actions, and the instant case went issue, the prosecution history of those other US patent applications would be made fully public. The Applicant is respectfully requested to reconsider including those office actions on an IDS.

Drawings

4. The drawings were received on 19 February 2002. These drawings are acceptable.

5. The drawings have not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the figures.

Specification

6. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 55-58, 62, 64-67, 70, and 71 are rejected under 35 U.S.C. 103(a) as being unpatentable over ***DeMond et al. (US 5,079,544 A)*** in view of ***Cordova, Jr. (US 5,526,327 A)***. Please note: claim order has been rearranged below to better reflect claim dependencies.

Regarding claim 65, ***DeMond*** discloses a method comprising:

enabling a display area [e.g., Fig. 1c & 1d; 32] to impart different selectable appearances to a surface [e.g., Fig. 1c & 1d; 34] that is exposed for viewing by a user when a product [e.g.,

Fig. 1a; 75] is in use, the surface including an electronically controllable active display area that includes an array [e.g., Fig. 1a; 16] of interference modulators of light on the surface, the display area providing an image at the surface,

and selecting one of the appearances to reflect a state of use of the product (see the entire document, including Column 7, Lines 1-50).

Although ***DeMond's*** video system [e.g., Fig. 1a; 75] itself arguably constitutes a "product" as instantly claimed, ***DeMond*** does not expressly teach integrating the video system into another product.

However, ***Cordova*** teaches integrating a display system into a truck product (see the entire document, including Fig. 7; Column 7, Lines 23-58).

DeMond and ***Cordova*** are analogous art, because they are from the shared inventive field of display devices for consumer products.

Although ***Cordova*** neglects to explicitly mention using "interference modulators of light," the reference does acknowledge that "any other source of light" may be used (see the entire document, including Column 8, Lines 9-19).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use ***DeMond's*** electronically controllable active display area as ***Cordova's*** display array, so as to provide a large display array with reduced speckle within a commercially popular consumer product.

It would have been obvious to one of ordinary skill in the art at the time of invention because all the claimed elements were known in the prior art and one skilled in the art could have combined an interference light modulator type display with an automotive product as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

It would have been obvious to one of ordinary skill in the art at the time of invention, because the substitution of one known display type for another would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

It would have been obvious to one of ordinary skill in the art at the time of invention, because the technique for improving (by providing a large display array with reduced speckle) this particular class of automotive display device was part of the ordinary skill in the art, in view of the teaching of the technique for improvement in other situations.

It would have been obvious to one of ordinary skill in the art at the time of invention, because this particular known interference light modulator type display substitution technique was recognized as part of the ordinary capabilities of one skilled in the art.

It would have been obvious to one of ordinary skill in the art at the time of invention, because a person of ordinary skill has good reason to pursue the known options within his or her technical grasp (i.e., using an interference light modulator type display as an automotive display). If this leads to the anticipated success, it is likely the product is not of innovation but of ordinary skill and common sense.

It would have been obvious to one of ordinary skill in the art at the time of invention, because design incentives or market forces provided a reason to make an interference light

modulator type display automotive adaptation, and the invention resulted from application of the prior knowledge in a predictable manner.

See KSR International Co. v. Teleflex Inc., et al., Docket No. 04-1350 (U.S. 30 April 2007).

Regarding claim 66, this claim is rejected by the reasoning applied in rejecting claim 65; furthermore, ***DeMond*** discloses product [e.g., Fig. 1a; 75] comprising a housing [e.g., Fig. 1a; 1] having a surface [e.g., Fig. 1c & 1d; 34] that is exposed for viewing by a user when the product is in use, an electronically controllable active display area [e.g., Fig. 1c & 1d; 32] on the surface, the display area including an array [e.g., Fig. 1a; 16] of interference modulators of light on the surface, the display area providing an image at the surface, the display area being capable of effecting different selectable appearances to the surface that are noticeable to the user, and a controller [e.g., Fig. 3; 154] having a port [e.g., Fig. 3; 162] for receiving information defining the different selectable appearances from an external source (see the entire document, including Column 10, Line 20 - Column 11, Line 57), the controller being connected to the display area for selecting one of the appearances for display and for causing the selected appearances to be displayed to the user (see the entire document, including Column 7, Lines 1-50).

Although ***DeMond's*** video system [e.g., Fig. 1a; 75] itself arguably constitutes a "product" as instantly claimed, ***DeMond*** does not expressly teach integrating the video system into another product. However, ***Cordova*** teaches integrating a display system into a truck product (see the entire document, including Fig. 7; Column 7, Lines 23-58).

DeMond and ***Cordova*** are analogous art, because they are from the shared inventive field of display devices for consumer products. Although ***Cordova*** neglects to explicitly mention using "interference modulators of light," the reference does acknowledge that "any other source of light" may be used (see the entire document, including Column 8, Lines 9-19). Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use ***DeMond's*** electronically controllable active display area as ***Cordova's*** display array, so as to provide a large display array with reduced speckle within a commercially popular consumer product.

Regarding claim 64, ***DeMond*** discloses one portion of the surface comprises a separate component [e.g., Fig. 1c & 1d; 32] incorporated with the housing and in which the active display area is on the separate component (see the entire document, including Column 7, Lines 1-50).

Regarding claim 67, this claim is rejected by the reasoning applied in rejecting claims 65 and 66; furthermore, ***DeMond*** discloses an object whose surface [e.g., Fig. 1c & 1d; 34] is modulated by virtue of the fabrication of an array of interferometric modulation elements [e.g., Fig. 1c & 1d; 32] on its surface (see the entire document, including Column 7, Lines 1-50).

Although ***DeMond's*** video system [e.g., Fig. 1a; 75] itself arguably constitutes an "object" as instantly claimed, ***DeMond*** does not expressly teach integrating the video system into another object. However, ***Cordova*** teaches integrating a display system into a truck object (see the entire document, including Fig. 7; Column 7, Lines 23-58).

DeMond and ***Cordova*** are analogous art, because they are from the shared inventive field of display devices for consumer products. Although ***Cordova*** neglects to explicitly mention using "interference modulators of light," the reference does acknowledge that "any other source of light" may be used (see the entire document, including Column 8, Lines 9-19). Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use ***DeMond's*** electronically controllable active display area as ***Cordova's*** display array, so as to provide a large display array with reduced speckle within a commercially popular object.

Regarding claim 71, this claim is rejected by the reasoning applied in rejecting claims 65, 66, and 67; furthermore, ***DeMond*** discloses a method of use with a product [e.g., Fig. 1a; 75] that includes an array [e.g., Fig. 1a; 16]of interference modulators of light [e.g., Fig. 1c & 1d; 32] on a surface [e.g., Fig. 1c & 1d; 34] of the product, the method comprising causing the product to perform a non-data processing operation or to be subjected to a non-data processing use by a user, the non-data processing operation or use having a condition that changes in the course of the operation or use (see the entire document, including Column 10, Line 20 - Column 11, Line 57), detecting the occurrence of a change in the condition, in response to the occurrence of the change in condition, selecting one of at least two different overall product appearances to indicate the occurrence to the user, and controlling the array of interference modulators to impart the selected overall product appearance to the product (see the entire document, including Column 7, Lines 1-50).

Although ***DeMond's*** video system [e.g., Fig. 1a; 75] itself arguably constitutes a "product" as instantly claimed, ***DeMond*** does not expressly teach integrating the video system

into another product. However, ***Cordova*** teaches integrating a display system into a truck product (see the entire document, including Fig. 7; Column 7, Lines 23-58).

DeMond and ***Cordova*** are analogous art, because they are from the shared inventive field of display devices for consumer products. Although ***Cordova*** neglects to explicitly mention using "interference modulators of light," the reference does acknowledge that "any other source of light" may be used (see the entire document, including Column 8, Lines 9-19). Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use ***DeMond's*** electronically controllable active display area as ***Cordova's*** display array, so as to provide a large display array with reduced speckle within a commercially popular consumer product.

Regarding claim 55, ***DeMond*** discloses the array spans a substantial portion of the surface (see the entire document, including Fig. 1a).

Regarding claim 56, ***DeMond*** discloses the appearances include decorative images (see the entire document, including Column 2, Lines 5-15).

Regarding claim 57, ***DeMond*** discloses the appearances include areas of variable color and/or brightness (see the entire document, including Column 9, Lines 8-17).

Regarding claim 58, ***DeMond*** discloses an interface [e.g., Fig. 3; 154] that enables the user to determine which of the appearances is selected (see the entire document, including Column 10, Line 20 - Column 11, Line 57).

Regarding claim 62, ***Cordova*** discloses the surface comprises a surface of a motor vehicle (see the entire document, including Fig. 7).

Regarding claim 70, ***DeMond*** discloses the appearance comprises iridescence (see the entire document, including Fig. 4; Column 11, Line 58 - Column 12, Line 5).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 55-58, 64-67, 70, and 71 are rejected under 35 U.S.C. 102(e) as anticipated by ***Bornstein et al (US 5,661,592 A)***.

11. Or, in the alternative, claims 55-58, 62, 64-67, 70, and 71 are rejected under 35 U.S.C. 103(a) as obvious over ***Bornstein et al (US 5,661,592 A)*** in view of ***Cordova, Jr. (US 5,526,327 A)***.

Please note: claim order has been rearranged below to better reflect claim dependencies.

Regarding claim 65, ***Bornstein*** discloses a method comprising: enabling a display area [e.g., Fig. 1; 10] to impart different selectable appearances [e.g., displays different images] to a surface [e.g., Fig. 1; 16] that is exposed for viewing by a user when a product [e.g., the display] is in use, the surface including an electronically controllable active display area that includes an array of interference modulators of light [e.g., Fig. 1; 18] on the surface, the display area providing an image at the surface, and selecting one of the appearances to reflect a state of use of the product (see the entire document, including Column 1, Line 13 - Column 3, Line 55).

Although ***Bornstein's*** display itself arguably constitutes a "product" as instantly claimed, should it be shown that ***Bornstein*** does not expressly teach integrating the display into another product with sufficient specificity; ***Cordova*** teaches integrating a display system into a truck product (see the entire document, including Fig. 7; Column 7, Lines 23-58).

Bornstein and ***Cordova*** are analogous art, because they are from the shared inventive field of display devices for consumer products.

Although ***Cordova*** neglects to explicitly mention using "interference modulators of light," the reference does acknowledge that "any other source of light" may be used (see the entire document, including Column 8, Lines 9-19).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use ***Bornstein's*** display with ***Cordova's*** display system, so as to provide a commercially popular consumer product with a display type that can modulate a light beam by altering the amplitude, frequency or phase of the light.

It would have been obvious to one of ordinary skill in the art at the time of invention because all the claimed elements were known in the prior art and one skilled in the art could have combined an interference light modulator type display with an automotive product as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

It would have been obvious to one of ordinary skill in the art at the time of invention, because the substitution of one known display type for another would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

It would have been obvious to one of ordinary skill in the art at the time of invention, because the technique for improving (by providing a large display array with reduced speckle) this particular class of automotive display device was part of the ordinary skill in the art, in view of the teaching of the technique for improvement in other situations.

It would have been obvious to one of ordinary skill in the art at the time of invention, because this particular known interference light modulator type display substitution technique was recognized as part of the ordinary capabilities of one skilled in the art.

It would have been obvious to one of ordinary skill in the art at the time of invention, because a person of ordinary skill has good reason to pursue the known options within his or her technical grasp (i.e., using an interference light modulator type display as an automotive display). If this leads to the anticipated success, it is likely the product is not of innovation but of ordinary skill and common sense.

It would have been obvious to one of ordinary skill in the art at the time of invention, because design incentives or market forces provided a reason to make an interference light

modulator type display automotive adaptation, and the invention resulted from application of the prior knowledge in a predictable manner.

See KSR International Co. v. Teleflex Inc., et al., Docket No. 04-1350 (U.S. 30 April 2007).

Regarding claim 66, this claim is rejected by the reasoning applied in rejecting claim 65; furthermore, ***Bornstein*** discloses product [e.g., the display] comprising a housing having a surface [e.g., Fig. 1; 16] that is exposed for viewing by a user when the product is in use, an electronically controllable active display area on the surface, the display area including an array of interference modulators of light [e.g., Fig. 1; 18] on the surface, the display area providing an image at the surface, the display area being capable of effecting different selectable appearances [e.g., displays different images] to the surface that are noticeable to the user, and a controller having a port for receiving information defining the different selectable appearances from an external source, the controller being connected to the display area for selecting one of the appearances for display and for causing the selected appearances to be displayed to the user (see the entire document, including Column 1, Line 13 - Column 3, Line 55).

Although ***Bornstein's*** display itself arguably constitutes a "product" as instantly claimed, should it be shown that ***Bornstein*** does not expressly teach integrating the display into another product with sufficient specificity; ***Cordova*** teaches integrating a display system into a truck product (see the entire document, including Fig. 7; Column 7, Lines 23-58).

DeMond and ***Bornstein*** are analogous art, because they are from the shared inventive field of display devices for consumer products.

Although ***Cordova*** neglects to explicitly mention using "interference modulators of light," the reference does acknowledge that "any other source of light" may be used (see the entire document, including Column 8, Lines 9-19).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use ***Bornstein's*** display with ***Cordova's*** display system, so as to provide a commercially popular consumer product with a display type that can modulate a light beam by altering the amplitude, frequency or phase of the light.

Regarding claim 67, this claim is rejected by the reasoning applied in rejecting claims 65 and 66; furthermore, ***Bornstein*** discloses an object [e.g., the display] whose surface [e.g., Fig. 1; 16] is modulated by virtue of the fabrication of an array of interferometric modulation elements [e.g., Fig. 1; 18] on its surface (see the entire document, including Column 1, Line 13 - Column 3, Line 55).

Although ***Bornstein's*** display itself arguably constitutes a "object" as instantly claimed, should it be shown that ***Bornstein*** does not expressly teach integrating the display into another object with sufficient specificity; ***Cordova*** teaches integrating a display system into a truck object (see the entire document, including Fig. 7; Column 7, Lines 23-58).

DeMond and ***Bornstein*** are analogous art, because they are from the shared inventive field of display devices for consumer products.

Although ***Cordova*** neglects to explicitly mention using "interference modulators of light," the reference does acknowledge that "any other source of light" may be used (see the entire document, including Column 8, Lines 9-19).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use ***Bornstein's*** display with ***Cordova's*** display system, so as to provide a commercially popular consumer product with a display type that can modulate a light beam by altering the amplitude, frequency or phase of the light.

Regarding claim 71, this claim is rejected by the reasoning applied in rejecting claims 65, 66, and 67; furthermore, ***Bornstein*** discloses a method of use with a product [e.g., the display] that includes an array of interference modulators of light [e.g., Fig. 1; 18] on a surface [e.g., Fig. 1; 16] of the product, the method comprising causing the product to perform a non-data processing operation or to be subjected to a non-data processing use by a user, the non-data processing operation or use having a condition that changes in the course of the operation or use, detecting the occurrence of a change in the condition, in response to the occurrence of the change in condition, selecting one of at least two different overall product appearances to indicate the occurrence to the user, and controlling the array of interference modulators to impart the selected overall product appearance to the product (see the entire document, including Column 1, Line 13 - Column 3, Line 55).

Although ***Bornstein's*** display itself arguably constitutes a "product" as instantly claimed, should it be shown that ***Bornstein*** does not expressly teach integrating the display into another product with sufficient specificity; ***Cordova*** teaches integrating a display system into a truck product (see the entire document, including Fig. 7; Column 7, Lines 23-58).

DeMond and ***Bornstein*** are analogous art, because they are from the shared inventive field of display devices for consumer products.

Although ***Cordova*** neglects to explicitly mention using "interference modulators of light," the reference does acknowledge that "any other source of light" may be used (see the entire document, including Column 8, Lines 9-19).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use ***Bornstein's*** display with ***Cordova's*** display system, so as to provide a commercially popular consumer product with a display type that can modulate a light beam by altering the amplitude, frequency or phase of the light.

Regarding claim 55, ***Bornstein*** discloses the array spans a substantial portion of the surface (see the entire document, including Fig. 1).

Regarding claim 56, ***Bornstein*** discloses the appearances include decorative images (see the entire document, including Column 1, Line 13 - Column 3, Line 55).

Regarding claim 57, ***Bornstein*** discloses the appearances include areas of variable color and/or brightness (see the entire document, including Column 1, Line 13 - Column 3, Line 55).

Regarding claim 58, ***Bornstein*** discloses an interface that enables the user to determine which of the appearances is selected (see the entire document, including Column 1, Line 13 - Column 3, Line 55).

Regarding claim 62, ***Cordova*** discloses the surface comprises a surface of a motor vehicle (see the entire document, including Fig. 7).

Regarding claim 70, ***Bornstein*** discloses the appearance comprises iridescence (see the entire document, including Column 1, Line 13 - Column 3, Line 55).

Response to Arguments

12. Applicant's arguments filed 8 February 2008 have been fully considered but they are not persuasive.

The Applicant contends, "*Demond merely describes the usage of spatial light modulators (SLM) 15. Applicant respectfully submits that Demond fails to teach or suggest the usage of light interfererence modulators as is claimed*" (see Page 10, Paragraph 1 of the Amendment filed 8 February 2008). However, the examiner respectfully disagrees.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "*the usage of light interfererence modulators*") are not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

The instant abstract of the disclosure states, "*An Interferometric Modulator (IMod) is a microelectromechanical device for modulating light using interference*" (see Lines 1-2).

DeMond discloses a display area [e.g., Fig. 1c & 1d; 32] to impart different selectable appearances to a surface [e.g., Fig. 1c & 1d; 34] that is exposed for viewing by a user when a product [e.g., Fig. 1a; 75] is in use, the surface including an electronically controllable active display area that includes an array [e.g., Fig. 1a; 16] of interference modulators of light on the surface, the display area providing an image at the surface, and selecting one of the appearances to reflect a state of use of the product (see the entire document, including Column 7, Lines 1-50).

DeMond explains, "*In the preferred embodiment of the invention, surface 16 comprises an array of* ***deformable mirror cells****. Deformable mirror cells suitable for use in array 16 is shown in FIGS. 1b, 1c, and 1d. Four cells, 17, 27, 37, and 47 are shown in FIG. 1b. The mirror 32 of cell 17 is connected by hinge 30 to modulator 15 at about the location shown in FIG. 1b. When the cell 17, is actuated, the mirror 32 is pulled downward from its position shown in FIG. 1c to its position shown in FIG. 1d. When the cell 17 is in the down position it* ***directs light along optical path 6****. When the mirror is in the up position of FIG. 1c,* ***the portion of the beam from optical path 7 is directed away from the optical path 6 and display 2****. The other portions of the array 16 which are not hinged, for example, surface portion 34, also does not direct light toward display 2.*

"In the presently preferred embodiment, it is seen that ***light is directed toward the display screen 2*** *only when a mirror (such as 32) is in the down position. This is because other portions*

of the ***array 16 (such as surface portion 34) may also be reflective and would add visual noise to the display****. In the preferred embodiment, light path 7 is substantially perpendicular to SLM 15 and light path 6 is at an angle. Other embodiments are of course possible without departing from the scope of the invention. For example, light path 7 could be at an angle to SLM 15 and light path 6 may be formed when a mirror element such as 32 is in the up (or normal with surface portion 34) position. A Schlieren stop would then be inserted prior to lens 5 so as to block unwanted light such as from surface portion 34*" (see Column 7, Lines 20-50).

DeMond also states, "*SLM 15 is operative to selectively redirect portions of light from path 7 toward enlarger lens 5 and onto display screen 2 so as to from an image. In the preferred embodiment of the invention, the SLM 15 is of a type known as a deformable mirror device (DMD) which will be discussed in detail below. Other SLMs (such as Bragg cells, LCDs, etc.) could be used in either a reflective (as shown) or transmissive mode provided that individual beams of light may be redirected at a high enough rate.*" (see Column 6, Lines 58-68).

DeMond additionally states, "*FIGS. 1a, 1b, 1c, and 1d show a preferred embodiment of a two dimensional digitized video system 75, which has an image generating system 1 and display screen 2. The display screen 2 may be a relatively flat sheet of an appropriate material, or it may be of curved configuration so as to concentrate the reflected light toward a viewer. Optionally, the display screen 2 may be translucent so as to allow for back projection. In the reflective (or front projection) mode, the display screen 2 may be composed of a rigid material such as plastic, metal, etc. and have a reflective surface. The surface may be a matte finish or lenticular pattern*

as is well known in the art. In the back projection mode, the display screen 2 may be composed of glass or a translucent plastic and may have a patterned surface so as to partially diffuse the light impinging on it from image generating system 1. Back-projection screens of this type are well-known in the art" (see Column 6, Lines 24-41).

As such, ***DeMond*** teaches, "*a microelectromechanical device for modulating light using interference*" (as recited in the Abstract) as well as "*an array of interference modulators of light*" (as instantly claimed).

The Applicant also contends, "*the cited art fails to teach or suggest 'selecting one of the appearances to reflect a state of use of the product' as is recited in independent Claim 66 or 'detecting the occurrence of a change in condition' of a product as is recited in independent Claim 71. In the Office Action, the Examiner took the position that these limitations are described on column 7, lines 1-50 of Demond. However, Applicant respectfully submits that the cited section is merely directed to the mechanism by which the display device operates and is not directed to teaching or suggesting that the appearance of the display reflects 'a state of use of the product.*'" (see Page 10, Paragraph 2 of the Amendment filed 8 February 2008). However, the examiner respectfully disagrees.

DeMond details, "*The preferred embodiments shown herein show various concepts in the field of digitized video systems for two dimensional images. A deformable mirror device is shown*

which is capable of receiving an image or a part of an image for display while displaying another image or another part of the image" (see Column 5, Lines 30-35).

As such, ***DeMond*** discloses a display area [e.g., Fig. 1c & 1d; 32] to impart different selectable appearances [e.g., images or parts of images] to a surface [e.g., Fig. 1c & 1d; 34] and selecting one of the appearances to reflect a state of use [e.g., wherein in the "state of use" is that the display is operating/functioning, i.e., display is "on" and receiving images] of the product (see the entire document, including Column 7, Lines 1-50).

Furthermore, ***DeMond*** discloses causing the product to perform a non-data processing operation [e.g., wherein the data processing operation is modifying the image via the CPU, or adjusting overly large input image resolutions] or to be subjected to a non-data processing use by a user [e.g., wherein the non-data processing operation/use is storing image chrominance and luminance into video memory], the non-data processing operation or use having a condition that changes [e.g., storing different image chrominance and luminance into video memory, or not storing any image at all, i.e., lost image signal] in the course of the operation or use (see the entire document, including Column 10, Line 20 - Column 11, Line 57), detecting the occurrence of a change in the condition [e.g., intermediate pixel interpolation], in response to the occurrence of the change in condition, selecting one of at least two different overall product appearances [e.g., different images or image parts are smoothed and displayed] to indicate the occurrence to the user, and controlling the array of interference modulators to impart the selected overall product appearance to the product (see the entire document, including Column 7, Lines 1-50).

The Applicant also contends, "*independent Claim 65, as amended recites: 'the surface [of the product] including an electronically controllable active display area that includes an array of interference modulators.' Applicant notes that the SLM of DeMond are located in the interior of the display device and not on its surface. See e.g.. Figure l a. Thus, Applicant respectfully submits that the cited are fails to teach or suggest at least this limitation*" (see Page 10, Paragraph 3 of the Amendment filed 8 February 2008). However, the examiner respectfully disagrees.

DeMond discloses a display area [e.g., Fig. 1c & 1d; 32] to impart different selectable appearances to a surface [e.g., Fig. 1c & 1d; 34] that is exposed for viewing by a user when a product [e.g., Fig. 1a; 75] is in use, the surface including an electronically controllable active display area that includes an array [e.g., Fig. 1a; 16] of interference modulators of light on the surface, the display area providing an image at the surface, and selecting one of the appearances to reflect a state of use of the product (see the entire document, including Column 7, Lines 1-50).

Figures 1c and 1d illustrate the surface [e.g., Fig. 1c & 1d; 34] including an electronically controllable [e.g., Fig. 1c & 1d; via 30] active display area [e.g., Fig. 1c & 1d; 32] that includes an array of interference modulators of light on the surface.

The examiner respectfully notes the Applicant has provided no arguments traversing the rejection of independent claim 67. The examiner takes this as an admission that the subject matter of claim 67 is fully disclosed by the prior art.

Applicant's arguments with respect to claims 55-58, 62, 64-67, 70, and 71 have been considered but are moot in view of the new ground(s) of rejection.

By such reasoning, rejection of the claims is deemed necessary, proper, and thereby maintained at this time.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure. The documents listed on the attached '*Notice of References Cited*' are cited to further evidence the state of the art pertaining to products having displays.

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action.

Moreover, the Applicant's amendment to "*to remove the claim of priority to U.S. Patent Application No. 08/238,750, filed May 5, 1994, now issued as U.S. Pat. No. 5,835,255, and U.S. Patent Application No. 08/554,630, filed Nov. 6, 1995, now abandoned, while retaining the incorporation by reference of these two applications*" (see Page 9, Paragraph 1 of the Amendment filed 8 February 2008) has necessitated the new ground(s) of rejection presented in this Office action.

Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Piziali whose telephone number is (571) 272-7678. The examiner can normally be reached on Monday - Friday (6:30AM - 3PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (571) 272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeff Piziali/
Primary Examiner, Art Unit 2629
30 May 2008